UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,420	04/26/2001	Ian Michael Charles Shand	CISCP207	1366

22434	7590	06/06/2005	

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EXAMINER
BLAIR, DOUGLAS B

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 December 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-50</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Claims 1-50 are currently pending in the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

Number 5,742,820 to Perlman et al. in view of RFC 1195 entitled "Use of OSI IS-IS for routing

in TCP/IP and dual environments" by Callon.

4.   As to claim 1, Perlman teaches a method for a network node connected to one or more

neighboring nodes in a network to acquire link state information from one or more neighboring

nodes, the method comprising: transmitting a first message from the network node to a first

neighboring node, the first message referencing dummy link sate information (col. 6, lines 46-

56); receiving a second message from the first neighboring node, the second message referencing

dummy link state information, the second message corresponding to an acknowledgement of

receipt of the first message by the neighboring node (col. 7, line 56-col. 8, line 21); receiving one

or more link state packets from the neighboring node, the one or more link state packets

corresponding to network link state information (col. 7, line 56-col. 8, line 21); however Perlman

does not explicitly teach dummy link state information that includes link state information that

the first neighboring node does not reference in its link state database.

Callon teaches dummy link state information that includes link state information that the

first neighboring node does not reference in its link state database (section B.2 of the

specification, CSNP packets do not have to reference link state information that would be in a

node's link state database).

It would have been obvious to one of ordinary skill in the Computer Networking art at the

time of the invention to combine the teachings of Perlman regarding a method for acquiring link

state information with the teachings of Callon regarding dummy link state information because

Perlman is using the IS-IS implementation taught by Callon.

5.   As to claim 2, Perlman teaches the method of claim 1, wherein the network node is

ignoring the second message (col. 7, line 56-col. 8, line 21).

6.   As to claim 3, Perlman teaches the method of claim 1, wherein the first and second

messages are IS-IS messages (col. 6, lines 46-56).

7.   As to claim 4, Perlman teaches the method of claim 1, wherein the first message is a

Complete Sequence Numbers Packet (col. 6, lines 46-56).

8.   As to claim 5, Perlamn teaches the method of claim 1, wherein the second message is a

Partial Sequence Numbers Packet (col. 6, lines 46-56).

9.   As to claim 6, Perlman teaches the method of claim 1, further comprising transmitting a

third message form the network node to a second neighboring node, the third message

referencing dummy link state information (col. 7, line 56-col. 8, line 21).

10.   As to claim 7, Perlman teaches the method of claim 6, further comprising transmitting a fourth message from the network node to the first neighboring node, the fourth message containing no reference to dummy link state information and directing the first neighboring node to transmit link state information not reference in the fourth message to the network node (col. 7, line 56-col. 8, line 21).

11.   As to claim 8, Perlman teaches the method of claim 1, further comprising receiving link state information and populating a link state database with the link state information (col. 7, line 56-col. 8, line 21).

12.   As to claim 9, Perlman teaches the method of claim 1, further comprising using the link sate information to generate a routing table (col. 7, line 56-col. 8, line 21).

13.   As to claim 10, Perlman teaches the method of claim 1, wherein the dummy link state information references a non-existent network node (col. 7, line 56-col. 8, line 21.

14.   As to claim 11, Perlman teaches the method of claim 1, wherein the dummy link state information references a non-existent network node (col. 7, line 56-col. 8, line 21.

15.   As to claim 12, Perlman teaches a method for a network node in a network to request link state information form one or more neighboring nodes, the neighboring nodes coupled with the network node, the method comprising: maintaining in persistent storage information identifying one or more neighboring nodes (col. 6, lines 46-56); restarting the routing control protocol, wherein restarting the routing control protocol clears the a link state database (col. 7, line 56-col. 8, line 21); transmitting heartbeat messages to one or more neighboring nodes, the heartbeat messages containing information from persistent storage identifying the one or more neighboring nodes to indicate that the network node is alive (col. 7, line 56-col. 8, line 21); transmitting a first

link state information request message to a first neighboring node, the first link state information

request message referencing dummy link sate information (col. 6, lines 46-56); transmitting a

second link state information request message to a second neighboring node, the second link

state information request message referencing dummy link sate information (col. 6, lines 46-56)

however Perlman does not explicitly teach dummy link state information that includes link state

information that the first neighboring node does not reference in its link state database.

Callon teaches dummy link state information that includes link state information that the

first neighboring node does not reference in its link state database (section B.2 of the

specification, CSNP packets do not have to reference link state information that would be in a

node's link state database).

It would have been obvious to one of ordinary skill in the Computer Networking art at the

time of the invention to combine the teachings of Perlman regarding a method for acquiring link

state information with the teachings of Callon regarding dummy link state information because

Perlman is using the IS-IS implementation taught by Callon.

16.   As to claim 13, Perlman teaches the method of claim 12, further comprising receiving a

partial link state information request message from the second neighboring node, the partial link

state information request message referencing dummy link state information, wherein receipt of

the partial link state information request message acknowledges that the second neighboring

node received the second link state information request message (col. 7, line 56-col. 8, line 21).

17.   As to claim 14, Perlman teaches the method of claim 12, wherein transmitting the second

link state information request message occurs after transmitting the first link state information

request message (col. 7, line 56-col. 8, line 21).

18.   As to claim 15, Perlman teaches the method of claim 12, wherein the first message is a

Hello message (col. 6, lines 46-56).

19.   As to claim 16, Perlman teaches the method of claim 12 wherein the second message is a

complete sequence numbers packet (col. 7, line 56-col. 8, line 21).

20.   As to claim 17, Perlman teaches the method of claim 1, wherein a message being Partial

Sequence Numbers Packet (col. 6, lines 46-56).

21.   As to claim 18, Perlman teaches the method of claim 12, further comprising generating a

routing table with the link state packets from one or more neighboring nodes, wherein the routing

table is generated when no link state packets have been received for a predetermined period of

time (col. 7, line 56-col. 8, line 21).

22.   As to claims 19-25 and 44-50, they have similar limitations to claims 1-7 and are rejected

for the same reasons as claims 1-7.

23.   As to claims 26-36, they have similar limitations to claims 1-11 and are rejected for the

same reasons as claims 1-11.

24.   As to claims 37-43, they have similar limitations to claims 12-18 and are rejected for the

same reasons as claims 12-18.

Response to Arguments

25.   Applicant's arguments with respect to claims 1-50 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

26.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

27.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The

examiner can normally be reached on 8:30am-5pm Mon-Fri.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BEATRIZ PRIETO
PRIMARY EXAMINER

Douglas Blair